



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

DATE: September 4, 2008
(Revised September 15, 2008)

TO: All Architects, Builders, Developers, Engineers, Contractors and Surveyors
Practicing in Fairfax County

SUBJECT: Letter #08-18, Change to Requirements for Trash and Recycling, High
Density Polyethylene Pipe, Inspection of Storm Drain Pipe, and Shared Utility
Easements

Background: On April 28, 2008, the Board of Supervisors adopted amendments to the Public Facilities Manual (PFM) and Chapters 101 (Subdivision Ordinance) and 112 (Zoning Ordinance) of the *Code of the County of Fairfax, Virginia* related to Trash and Recycling, High Density Polyethylene Pipe (HDPE), Inspection Requirements for Storm Drain Pipe and Shared Utility Easements. These amendments became effective at 12:01 a.m. on April 29, 2008. A summary of the adopted amendments is provided below.

Trash and Recycling: Revises the Zoning Ordinance and PFM to incorporate adopted changes to Chapter 109.1 (Solid Waste Management) of the County Code related to recycling standards. The amendment includes the following provisions:

1. Non-residential properties must recycle mixed paper and cardboard (in addition to their principal Recyclable Material, as applicable).
2. Multi-family dwelling units constructed on or after July 1, 2007, must recycle cans and bottles (in addition to mixed paper and cardboard).
3. Site plans for non-residential and multi-family properties must be designed to accommodate the anticipated volume of trash and recyclable material generated by a property. Plate #33-10 (33M-10) provides a typical detail illustrating side by side dumpsters for accommodating the collection and storage of trash and recyclable materials.

In addition, PFM § 10-0305.1 requires use of a standardized worksheet, provided by the DPWES Division of Solid Waste Collection and Recycling, for calculating the anticipated volume of materials generated by a specific property. A copy of the *Waste Stream Calculation Worksheet* is available on the Department of Public Works and Environmental Service's website at <http://www.fairfaxcounty.gov/dpwes> under Forms (Site Development Forms). The required worksheet can be submitted online or attached to the associated site plan.

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Land Development Services

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4. Site plans must be designed to provide adequate access to collection and storage areas by collection vehicles, public health inspectors, and building tenants. In addition, for multi-family properties, areas designated for trash and recycling containers should generally be located within 200 feet walking distance of the building being served unless otherwise approved by the Director.

High Density Polyethylene Pipe and Inspection Requirements for Storm Drain Pipe:

Revises the PFM to incorporate standards related to the use of HDPE for certain storm drainage applications and incorporates standards, including AASHTO's recommendations, pertaining to the field inspection of HDPE, concrete and CMP pipe installations. The amendment includes the following provisions:

1. HDPE pipe must conform to the requirements of AASHTO M 294 Type S. The maximum size permitted is 48 inches.
2. Joints for HDPE pipe must be watertight meeting a pressure test of 10.8 psi per ASTM D 3212 and use a bell and spigot design with a rubber gasket meeting the requirements of ASTM F 477, "Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe." These joints are designed to prevent infiltration of soil and exfiltration of storm water.
3. Installations and pipe cover for HDPE pipe must be in accordance with ASTM D 2321- "Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications", the manufacturer's recommendations, and VDOT standards, whichever are more stringent. Pipe bedding and backfill must conform to the standards set forth in Plate #93-6 (#93M-6).
4. Filter fabric must surround the aggregate fill material for HDPE pipe when there is a high water table or where the movement of groundwater can cause the migration of fines from the soil envelope.
5. Flexible waterstops, resilient connections, or other flexible systems to make watertight connections to manholes and other structures must be provided for HDPE pipe. Grouting between the thermoplastic pipe and the manhole and other structures is not permitted.
6. All storm sewer pipes must undergo visual and video inspections, installation deflection testing, and pipe evaluations by the Developer to ensure proper performance.
7. Visual Inspection for HDPE: During the installation process, the developer must provide for full-time visual inspection of high density polyethylene (HDPE) storm sewer pipe. Installation and inspection of bedding and backfill materials, as well as their placement and compaction, must meet the PFM requirements and Section 30.5.6.1 (Visual Inspection) of the American Association of State and Highway Transportation Officials (AASHTO's) Load and Resistance Factor Design, Bridge Construction

Specifications. Visual inspection must be performed by an independent inspection and testing agency or design professional licensed in the Commonwealth of Virginia.

8. Video Inspection for all pipes: No sooner than thirty days after completion of installation and final fill and pavement or alternative section, a video record must be performed by the developer on all storm sewer pipes unless deemed unnecessary by the Environmental and Facilities Inspections Division (County inspector), DPWES.
9. HDPE Installation Deflection Testing: No sooner than thirty days after completion of installation and final fill and pavement or alternative pavement section, HDPE pipe must be evaluated for deflection using a mandrel or other device that can physically verify the dimension of the pipe as approved by the Director. The pipe must be evaluated by the developer to determine whether the internal diameter of the barrel has been reduced more than five percent. A minimum of ten percent of the total number of pipe runs representing at least ten percent of the total length of installed pipe must be tested for deflection, in addition to all areas that were identified in the visual inspection as having deflection. Deflection testing must be conducted by the Developer in the presence of a County inspector, or by an independent inspection and testing agency or design professional licensed in the Commonwealth of Virginia. Testing must be conducted in the locations specified by the County inspector.
10. Pipe Evaluations for concrete and HDPE: Pipe inspection must be in accordance with Sections 27.6 (Field Inspection) and 30.5.6.2 (Installation Deflection) of AASHTO's Load and Resistance Factor Design, Bridge Construction Specifications as determined by the Director. For instances where cracks are wider than 0.01 inches (0.25 millimeters) for concrete pipe, and where pipe deflection exceeds five percent of the inside diameter of HDPE pipe, an evaluation must be conducted by the developer's design professional licensed in the commonwealth of Virginia and submitted to the County for review and approval considering the severity of the deflection (HDPE), structural integrity, environmental conditions, and the design life of the pipe. Repairs, replacement and remediation must be noted on the inspection report and made in a manner acceptable to the Director. Copies of inspection and mandrel test results, and video record that depict construction and installation of pipes in compliance with PFM standards must be provided to the County inspector for review and record within two weeks of the time the video was taken. The video recording shall be provided in a format acceptable to the Director. The independent inspection and testing agency or design professional licensed in the Commonwealth of Virginia must certify that the required testing and inspections have been completed and construction is in conformance with the approved plans, VDOT specifications and standards of the PFM.

Shared Utility Easements (Supersedes Letter to Industry #04-18): Revises the PFM and Subdivision and Zoning Ordinances to align them with the adopted changes to Va. Code 15.2-2241(6) related to common or shared utility easements. The proposed amendment includes the following provisions:

1. Delete the requirement for shared utility easements to be conveyed by reference on the final plat to a declaration of the terms and conditions of such common easements recorded in the land records of Fairfax County. Under the new provisions, the first utility to be installed, typically the electric company, can locate the shared easement. Other utilities can then co-locate in the platted easement.
2. Delete the requirement for written notice to the owners of all public service corporations and franchised cable television operators furnishing cable television, gas, telephone and electric service to the proposed subdivision regarding the provision of a shared utility easement.
3. Add a section in the PFM requesting developers to work with utility companies early in the design process to encourage the placement of electric, cable, telephone and gas facilities within common or shared easement areas, the location and size of which shall be adequate for use by public service corporations and franchised cable television operators which may be expected to occupy them.
4. Add a requirement in the PFM and the Zoning Ordinance for a note to be placed on all plats and plans stating that any future easement or authorization for electric, cable, telephone or gas service to be furnished to the property must comply with the provisions of Va. Code 15.2-2241(6).
5. Add a requirement to the PFM that the common or shared easement shall only be within proffered limits of clearing and grading; but, shall not be within proffered tree save areas.

The amendments are on the County's website at <http://www.fairfaxcounty.gov/dpwes>. If you have any questions, please contact the Code Analysis Division at **703-324-1780, TTY 711**. Questions specific to the Waste Stream Calculation Worksheet(s) should be directed to Kate Sicola with the Division of Solid Waste Collection and Recycling at **703-324-5230, TTY 711**.

Sincerely,

James Patteson, PE
Director, Land Development Services